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THE EXTENSION HORTICULTURIST

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Annual reports are now the order of the day and many of the specialists are cutting down their field work in order to spend more time in the office summarizing the work of the year and getting it into shape for their reports. The annual report which is of most value is the one that states the problems, the solution, the methods of carrying on the work, the results, and finally the extent to which these results are being accepted and put into practice by the growers of the state.

Are you going to attend the annual meeting of the American Society for Horticultural Science in Washington, D. C., on December 29, 30, and 31, and give a paper on your extension work and methods?

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The week of October 19 to 25, inclusive, was spent by Mr. Beattie visiting the horticultural extension workers in Connecticut, Rhode Island, Massachusetts, and New Jersey. Two days were spent in western Connecticut in company with Mr. A. E. Walkinson, Vegetable Specialist, in visiting the county agents and checking up on the season's vegetable extension work. and in securing from the cooperators records of all completed demonstrations The region visited comprises the famous Berkshire Hills section noted for scenic beauty and for the rolling character of the country. During recent years dairying has been promoted throughout this region, but in many cases the dairying work has either been discontinued or reduced, and the farm income supplemented by fruits and vegetables. Cabbage, cauliflower, potatoes, tomatoes, celery and onions are among the vegetable crops most commonly grown on the dairy farms. In a few instances where dairying has been discontinued entirely, the farms have been converted into regular truck farms and a full line of vegetables adapted to the region are being grown. The markets for the produce grown in this manner are mostly local, including the towns of the section and summer hotels. The combination of eight to twelve cows, a little poultry, and a few well selected vegetable crops, has proved a winner in most instances, and much more dependable than either the exclusive dairying proposition or specialized vegetable growing.

A rather unique feature of the work conducted by Mr. Wilkinson is the way he handles special inquiries coming through the county agents. In visiting each county, Mr. Wilkinson first goes to the county agent and secures from him a list of the growers in the county who are seeking special information. He then visits as many of the persons making inquiries as time will permit, leaving the question of choice to the county agent. For instance, in one county visited on this trip, a county agent gave Mr. Wilkinson the names of five cooperators in the county who desired help on special problems. One man wanted assistance in the matter of providing storage for his crop of colery which was larger than could be marketed direct from the field and the problem was how to convert an old dairy barn having coment floor into a celery storage house. Mr. Wilkinson visited this farm during the day, went over the situation, and made first hand suggestions. In another case it was a question of the storage of onions, and still another the problem of handling a rather large crop of late cabbage. This type of service is given while making the rounds of visiting regular demonstrations, and the only weak point in the plan in our opinion is that the county agent was not present when the information was given, therefore, he would not be in position to extend the same information, and it would be necessary for the grower to whom the service was given to become the extension factor in getting the information across to others.

A portion of one day was spent at Kingston, Rhode Island, in company with Dr. Hartwell, Director of the Rhode Island Experiment Station, in looking over his most interesting experimental work in connection with the relationships of soil conditions to crop production. Space would not permit going into detail, but any one who has not already received the publications issued by Dr. Hartwell would do well to secure them. The publications, however, do not tell the story in the same way as does a visit and a first hand view of the results. Some of the most remarkable



differences are to be found in the lime comparison plots. Here, for example, we have a marketable crop of celery on one plot and a complete failure on the adjoining plot, the difference being due to lime conditions in the soil of each plot.

At Providence, Rhode Island, the work in vegetable growing conducted by County Agent McLaughlin was visited and a number of observations made. Formerly, the extension work in this section was almost entirely along dairying lines. At present the County Agent is making vegetable growing and poultry his major lines of work. One of the interesting places to visit is the Providence Farmers Exchange, a selling organization, which handles the products of its members on the market. The Exchange has a building with cold storage facilities in the basement and acts as "sales agent" for the growers, thus saving them the time otherwise required to sell their produce. From a time saving standpoint the Exchange is a great success and seems to be getting the growers very fair returns.

While in the Providence section, Prof. H. F. Tompson, formerly Head of the Vegetable Garden Department of the Massachusetts Agricultural College, but who is now on his own farm near Attleboro, was visited, Prof. Tompson markets his products in Providence through the Exchange, and is putting into practice many of the points taught while in the extension work. Prof. Tompson has been on his farm less than a year, but has made remarkable progress in getting the work organized.

One day was spent with Prof. R. M. Koon, who succeeded Prof.
Tompson In Charge of the Vegetable Extension Work in Massachusetts.
Prof. Koon makes his headquarters at Waltham, where the new vegetable field station is located. This station was formerly at Lexington,
Massachusetts, but has now been transferred to Waltham where a larger area and greater working facilities are available. While this station is largely for the conduct of experimental work much of this work will be useful as demonstrations. Mr. Koon has only been on the work in Massachusetts a short time but is getting it organized through the county agents and is forming splendid contacts with the vegetable growers of the entire state.

On the return trip to Washington a stop was made in northern New Jersey to look over some of the vegetable proper that are being grown as demonstrations, also to spend a few hours with Mr. C. H. Nissley, Vegetable Specialist of New Jersey. Mr. Nissley reports that he has found his schedule of work too heavy and in many cases burdensome upon the county agents. He is therefore cutting it down to three major projects, namely, seed production, insect control, and disease control. In the work with seed production attention will be given to the selection and mass production of superior strains of certain vegetable seeds. In the insect control work spraying and dusting demonstrations will be continued. In the disease work the spraying and dusting demonstrations will be carried on, and in addition selection and certification work will be done in the growing of disease free seeds and planting stock.

Throughout the territory visited there is a feeling on the part of the specialists that they have been undertaking too many lines of work in the past and that in order to get the best results they must reduce the number and give more time to the more important projects.



Trip Report of Prof. C. P. Close to Washington, Oregon, Idaho, Utah, and Colorado, In August, September and early October.

Since the lines of horticultural demonstration work and the commercial horticultural crops in Washington and Oregon are so similar, they are reported on jointly rather than separately so as to avoid repetition. A brief report only of the more important lines of work is being given.

This season in the States of Washington, Oregon, and Idaho, was particularly bad for fruit demonstration work because the very early and dry spring caused fruit trees to bloom much earlier than usual, the late spring frosts injured the fruit blossoms to the extent of reducing the apple and pear crops to about 40% of normal, and the shortage of irrigation water and the dry hot season caused much of the fruit to be undersized. For these reasons some of the spraying and fruit thinning demonstrations had to be abandoned.

In Washington and Oregon the big problems with tree fruits are soil management, increasing acre production, increasing size of fruits and growing a larger proportion of the best grades, and standardizing commercial varieties, particularly of apples and pears. With small fruits the problems are soil improvement by use of fertilizers, cover crops and straw mulch; pruning and training; increased crop production; and, especially in Washington, overcoming winter injury.

Fruit Specialist, C. L. Long of Oregon and Fruit Specialist, M. D. Armstrong of Washington, have demonstrated the high renewal pruning of fruit trees so successfully that from 70 to 90 per cent of the commercial fruit growers in the different fruit sections have adopted the practice except on peaches for which it is not used in those states. This system seems to be well adapted to the Pacific Coast states.

The taking out of filler orchard trees or crowding trees where too closely planted is absolutely essential and is being stressed. Fruit men are loath to take out bearing trees, but are being shown that it must be done to continue production of high class fruit.

Standardizing of commercial varieties of apples by eliminating about 24 out of every 25 is of the utmost importance. Many trees are being grafted or budded to Winesap, Delicious and Banana for first choice in Washington, and Winesap, Johathan, Rome Beauty and Delicious in Oregon. Under certain local conditions, Johathan, Esopus, Rome Beauty, Stayman Winesap, Black Ben and Yellow Newtown are second choice in Washington and Arkansas Black, Stayman Winesap, Paragon, and Banana, are second choice in Oregon.

After several years of demonstrations, fruit thinning has been pretty well adopted as a regular orchard practice, because of the urgent need of getting fruits of good size and color.

Cover crop work in irrigated orchards is one of the strong lines in these states. Thousands of acrcs of orchards have been sown to alfalfa

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and a considerable acreage to red clover and vetch. In some of the orchards the alfalfa has not been cut or disturbed for several years and forms a thick mat under which the irrigation water runs. These cover crops have been the salvation of hundreds of orchards nearly ruined by clean cultivation up to recent years.

Orchard heating is receiving much attention and was the means of saving some very valuable crops of pears and apples, but pears particularly in southern Oregon. In Jackson County, Oregon, 65,000 orchard heaters or smudge pots were already ordered for delivery next spring and it was expected that this number would be increazed to 100,000. These are all to be the five to ten quart lard pail type of smudge pots.

In his spraying demonstrations, Mr. Armstrong is using 300 to 350 pounds pressure and 10 to 12 gallons of spray mixture per large apple tree instead of 4 or 5 gallons, the amount used by most growers. The stationary spray outfit is becoming popular in Washington, and in Chelan County 60 orchards are now piped and equipped for this type of spraying.

Mr. Long is doubtless doing more on county and state programs of horticultural work than any other fruit specialist in the country. County agricultural conferences are held, committees of the college men and growers are appointed on different fruits and vegetables to study and report on each kind from a national standpoint of production and marketing, and it is then decided what lines of fruit and vegetable work will be most desirable and profitable in any particular county. The reports of the committees give quite complete statistics on national and state production and consumption of hosticultural crops and advise which lines of demonstration work to put into the program. This piece of work is so important that it is hoped Mr. Long will discuss it before the American Society for Horticultural Science at/Washington, D. C. meeting on December 29, 30, and 31. Mr. Long has under way some very extensive fertilizer demonstrations on broccoli and in prune orchards.

In Idaho, Prof. E. R. Bennett, Horticultural Specialist, devotes nearly all of his time to potate culture and seed certification work. This is mostly done in northern Idaho so far from extension headquarters in Boise that the potate demonstrations were not visited. The week in Idaho was spent in the fruit sections of Boise and adjoining valleys. A few tree pruning demonstrations have been held and lectures on fruit and vegetable growing and landscape improvement have been given. Prof. Bennett realizes the need of fruit and vegetable demonstration work and will get several lines started next spring.

The late spring frosts, dry hot summer, and shortage of irrigation water injured the fruit crop seriously in Idaho.

There is not a Smith-Lever project in horticulture in Utah, but there will be one by January first. Prof. T. H. Abell has done some pruning, soil management and packing and marketing work as time permitted. The county agents call for help with fruits and vegetables and Prof. Abell will soon have the work so organized that he can help them more than he has done in the past.



Prof. Emil Hansen has a state project in landscape work and has done an immense amount of good work throughout the state. He now has about a hundred demonstration plantings around homes, schools, churches, cemeteries, public buildings, factories, and parks. He also has four towns completely organized for cleaning up, painting, whitewashing and ornamental planting. Every organization in each town such as the chamber of commerce, citizens associations, church societies, school boards, boys' and girls' clubs, etc., have signed up to do certain lines of improvementwork and each has its allotted work or section of the town to be responsible for. This is certainly a wonderfully organized piece of improvement work.

Colorado does not have a Smith-Lever horticultural project, but the State Horticulturist, Dr. E. P. Sandsten, and his assistants are giving the fruit and truck growers a great deal of help in culture, pest control, tree pruning, grading and packing, and the usual lines of horticultural demonstration work conducted in other states.

Personal Notes.

Mr. S. B. Shaw, who formerly did horticultural extension work in Maryland, is now marketing specialist in Maryland and Mr. A. F. Vierhaller of the University of Maryland, has been appointed horticultural extension specialist.

Mr. F. E. Cole has given up fruit extension work in Massachusetts to become manager of the Nashoba Cooperative Fruit Producers' Association in Middlesex and Worcester Counties, Massachusetts. Mr. W. H. Thies of the Michigan Agricultural College is now Fruit Specialist in Massachusetts.

Fruit, Vegetable and Landscape Extension Literature Received
During October 1923.

Michigan - Agricultural College, East Lansing

Better Potato Exhibits - Ext. Bul. 36, Oct. 1924.

Minnesota - University, University Farm, St. Paul

Storing Potatoes on the Farm - Cir. 18, Aug. 1924.

New York - Cornell University, Ithaca

The Home Orchard and Fruit Garden - Ext. Bul. 89, July 1924. Growing Pears for the Canning Factory - Ext. Bul. 95, Sept. 1924. Growing Tomatoes for the Canning Factory - Ext. Bul. 96, Sept. 1924. Growing Sweet Corn for the Canning Factory. - Ext. Bul. 97, Sept. 1924.

Ohio - State University, Columbus

The Peach Tree Borer - Vol. XX, No. 3, 1924 - 1925.

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